IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant	:	Iliff, Edwin C.
App. No.	:	09/785,044
Filed	:	February 14, 2001
For	:	AUTOMATED DIAGNOSTIC SYSTEM AND METHOD INCLUDING REUSE OF DIAGNOSTIC OBJECTS
Examiner	:	Channavajjala, Srirama T.
Art Unit	:	2166
Conf. No.	:	4724

REQUEST FOR REHEARING OF BOARD OF PATENT APPEALS AND INTERFERENCES DECISION UNDER 37 C.F.R. § 41.52

Dear Sir:

Appellant hereby respectfully requests that the Board reconsider its Decision on the basis of the following remarks. A request for rehearing is appropriate when the appellant believes that the Board has misapprehended or overlooked important points. M.P.E.P § 1214.03 and 37 C.F.R. § 41.52.

Appellant Did Not Waive Its Argument

The Board decision stated at page 14, "[i]n the Reply Brief, Appellant further argues that though C/C++ is an 'object oriented language,' it does not generate 'objects' as defined by the Terminology Section of Appellant's Specification (Reply Br. 6-7). This argument could have been raised in the Appeal Brief and is therefore waived. See 37 C.F.R. § 41.37 (c)(1)(vii)." The Board's reliance on this section of the C.F.R. to disqualify the arguments presented by Appellant in the Reply Brief is improper.

As procedural background of this appeal, an Answer and a Supplemental Examiner's Answer were provided by the Office. In the Supplemental Examiner's Answer, it is stated that "applicant failed to clarify how prior art C/C++ object oriented tool is different from instant application object oriented language in specifying diagnostic objects recited in the [sic] claim 6." This new finding by the Examiner needed to be addressed by Appellant for the first time. Accordingly, Appellant filed a Reply to Supplemental Examiner's Answer with an argument that it is not the object oriented language itself that generates the specific objects referred to in Appellant's claims. (*Reply Brief*, pages 6-7).

The C.F.R. basis for the waiver by the Board is recited below:

> Argument. The contentions of appellant with respect to each ground of rejection presented for review in paragraph (c)(1)(vi) of this section, and the basis therefor, with citations of the statutes, regulations, authorities, and parts of the record relied on. **Any arguments or authorities not included in the brief or a reply brief filed pursuant to § 41.41 will be refused consideration by the Board, unless good cause is shown.** Each ground of rejection must be treated under a separate heading. For each ground of rejection applying to two or more claims, the claims may be argued separately or as a group. When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately. Any claim argued separately should be placed under a subheading identifying the claim by number. Claims argued as a group should be placed under a subheading identifying the claims by number. A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim. 37 C.F.R. § 41.37 (c)(1)(vii) (2004) (emphasis added)

Although this paragraph is directed predominantly to the form and content requirements for the arguments presented in an appellant's brief, it clearly states that any argument "not included in the brief or **a reply brief** filed pursuant to § 41.41 will be refused consideration by the Board, unless good cause is shown." Since the arguments entitled *Iliff Does Not Disclose the Particular Objects of Claim 6 and Their Interaction* (pages 6-8) was indeed raised in a reply brief, it cannot be subject to waiver. Therefore, Appellant respectfully requests reconsideration of this argument by the Board.

The Term "Object" is Well-Defined

In addition, the Board stated that:

... Even assuming arguendo that the "Terminology Section" defines "objects" in a manner distinguishing over Iliff, the "Terminology Section" states that "nothing in this section is meant to limit the meanings attributed to each word" (Spec. 6, ll. 16-17). Thus, we see no reason to limit the recited "objects" in accord with Appellant's Reply Brief argument.

First, this boilerplate language is completely taken out of context. This quoted sentence from Appellant's specification is taken from a paragraph which reads in context as follows: "[t]he terms presented in this section include text to assist in understanding their meanings. Nonetheless, nothing in this section is meant to limit the meanings attributed to each word." The text below this paragraph sets forth a very clear definition of "object."

Specifically, this same section of Appellant's specification defines "object" as:

In computer software terms, an object is combination of data and processes that manipulate the data. The data are said to be "encapsulated," meaning that they are hidden, so that a user of the object only sees processes that can be invoked. Using an object's processes, one can then manipulate the data without having to know the exact location and format of the data. When more than one copy of the object is required, one can make copies of the data, but use the same process set to manipulate each of the copies as needed. This set of processes can then be thought of as an "engine" that controls or represents the objects' behavior, whether there are 10 or 10,000 object copies. *Specification* at p.10 and similarly at page 12.

Appellant's definition of "object" is essentially the same as the plain and ordinary meaning of "object" to a person of ordinary skill in the art. Appellant has used this term repeatedly and consistently with that meaning in its specification and the prosecution history. The Board has erred by refusing to accept this definition, as it is the only definition provided anywhere in Appellant's file history and is entirely consistent with the plain and ordinary meaning of the term.

In *Wireless Agents LLC, vs. Sony Ericsson Mobile Communications AB* 189 Fed. Appx. 965 (Fed, Cir. 2006), the patent owner had used "boilerplate" language that said, *inter alia*, "[a]lthough the invention has been described with reference to a particular embodiment, this description is not meant to be construed in a limiting sense." *Id.* at 967. Relying on this "disclaimer," Wireless sought to define the term "alphanumeric keyboard" in a broader sense

than was defined in the specification. The Federal Circuit disagreed, saying "[w]e see nothing in this language that contradicts our reading of the specification." *Id.* Accordingly, the Board cannot rely on Appellant's like statement to, in effect, obliterate Appellant's consistent definition of a term.

During patent examination, the pending claims must be "given their broadest reasonable interpretation <u>consistent with the specification.</u>" (emphasis added) *See Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005). The terms presented in the terminology section and throughout the specification are defined as intended by Appellant. "When the applicant states the meaning that the claim terms are intended to have, the claims are examined with that meaning." *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). Appellant is limited by these definitions, and its application should be examined accordingly. "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings"). Therefore, the Board is required to interpret the claim language <u>consistently with the specification</u> and only as broadly as reasonable. The Board has improperly interpreted the term "object" in an unreasonable way that is entirely not consistent with the specification, and Appellant respectfully requests reconsideration using the definition provided at pages 10 and 12.[1]

Each Diagnostic Object is Precisely Specified

The Board considered, in the discussion of the 35 U.S.C. § 102 rejections, whether or not the Examiner erred in finding, with regard to at least claim 6, that Iliff '669 teaches "at least two diagnostic objects comprising: a disease object, a symptom object, a valuator object, a question object, a node object and a candidates object. . ." *Board Decision* at page 12.

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[1] The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75(d)(1). M.P.E.P. § 2111.

The Board agreed with the Examiner that the diagnostic objects are "not precisely specified" in Appellant's specification. The decision relies upon an interpretation that the words preceding the word "object", for example, "disease," "symptom," "valuator," "question," "node," and "candidates" are ''nonfunctional descriptive' material that are not functionally related to their respective objects. That is, the labels do not change the functionality of or provide an additional function to the object of claim 6." *Board Decision* at page 12, 3rd paragraph. Appellant is unaware of any legal doctrine, statute, or rule that uses "non-functional descriptive material" nomenclature as a basis for claim construction, and none was cited in the Board decision.

The Board interpreted Claim 6 "as merely requiring 'objects'" and thus has improperly read the terms disease, symptom, question, node and candidate out of the claim. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Specifically, each of these terms was carefully defined by Appellant in the specification. These terms correctly identify the function of each diagnostic object as recited in the specification as summarized below. Beginning at page 13, of the specification as filed, a **"disease object"** is described as "a software object that represents an abnormal health state (illness, disease, disorder, cause) which we collectively call a "disease." It is used in the method to establish the likelihood that the specified disease exists in the current patient." The section further discloses a description of the data unique to the disease object, a set of disease functions or procedures that operate on the data, and a description of how the disease object operates.

- Beginning at page 15, a **"symptom object"** is described as "a patient health item (sign, symptom, complaint, presentation, manifestation, finding, laboratory test result (home or remote), interpretations of an imaging study) which is collectively called a "symptom." The section further discloses a description of the data unique to the symptom object, a set of symptom functions or procedures that operate on the data, and a description of how the symptom object operates.

- Beginning at page 18, a **"valuator object"** is described as "the actions required to establish the value of a symptom in a patient at a specified time." The section further discloses a description of the data unique to the valuator object, a set of

valuator functions or procedures that operate on the data, and a description of how the valuator object operates.

- Beginning at page 19, a **"question object"** is described as "a script where the author actually writes a script, albeit typically a very short one, that is focused on asking about one specific symptom." The section further discloses a description of the data unique to the question object, a set of question functions or procedures that operate on the data, and a description of how the question object operates.

- And finally, a **"node object"** is described beginning at page 20 as "the software elements required to ask a single, well-defined question of the patient and to return the response selected by the patient." The section further discloses a description of the data unique to the node object, a set of node functions or procedures that operate on the data, and a description of how the node object operates.

In the Reply to Examiner's Supplemental Answer, Appellant directed the Board to paragraphs [0124] and [0148] which describe symptom and valuator objects, respectively. These particular paragraphs of the specification, as well as those surrounding them, are referenced immediately above, and disclose detailed descriptions of the function of each object. *See* Reply to Examiner's Supplemental Answer, page 13.

Given the very clear correlation between the **defined functionality** and the respective terms adopted by Appellant, these specific diagnostic objects are precisely defined, and each type of diagnostic object is clearly understood to be distinct from its sister types. Thus, the terms are not "nonfunctional descriptive material," but rather adjectives that refer to specific types of diagnostic objects whose functionality is clearly defined in the specification. As is further elaborated on below, Iliff '669 discloses an automatic diagnostic system using structural programming. Accordingly, Iliff '669 cannot disclose disease objects much less the specifically defined diagnostic objects.

<u>Nowhere Does Iliff '669 Disclose A Hierarchical Relationship Such That The Result Of One Of
The Objects Is Input Into Another Of The Objects</u>

The Board has also erred in finding that the "nodes" disclosed in Iliff '669 correspond to
Appellant's claimed "objects." The decision stated that:

> . . .we interpret claim 6 as merely requiring "objects" that have "a
> hierarchical relationship such that the result of one of the objects is input to
> another of the objects," and that directly invoke, e.g., call or pass control/data to,
> one another "so as to output a diagnosis of a patient" (claim 6). *Board Decision* at
> page 13.

Iliff '669 fully discloses a runtime interpretation of a node-based language. But nowhere
does it disclose a "hierarchical relationship such that the result of one of the objects is input to
another of the objects." As depicted in Figures 3-6, Iliff '669 discloses a system that follows
sequential steps. The interpretation of the nodes involves executing algorithms in a table
methodology. This is pictorially depicted in Figures 5a – 5e of the Iliff '669 patent specification.
At columns 14 and 15, nodes are further explained as being part of a directed graph or node map,
a node being only data to be sequentially interpreted. The Board has not provided any specific
reasoning as to why this hierarchical relationship can be found in the patent.

Furthermore, given the proper meaning of "object," nodes have no associated processes
that encapsulate and hide prospective data. Each software object as properly construed is "a data
structure **plus associated processes** that can do things with or for or to the data." *See*
specification at page 12. An "object" is described in Appellants specification at least at page 12:

> A software "object" is basically a data structure plus associated processes
> that can do things with or for or to the data. An important property of an object is
> that the object's data can be hidden behind the object's processes, so that the
> outside user of the object can only see and use object processes that can be
> invoked to access the data. The object is said to "hide" data; it provides the
> powerful ability of decoupling the world that uses an object from the object itself.

Accordingly, the nodes disclosed in Iliff '669 do not correlate to the objects recited in
Appellant's claims because the nodes disclosed in Iliff '669 are visible data to be sequentially
interpreted and the objects as recited in Appellant's claims comprise data and **the processes that
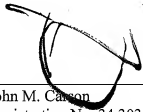hide the data**.

Conclusion

In view of the foregoing, the Appellant respectfully request reconsideration of the Board's Decision and submits that the rejections should be withdrawn and that Claims 1-52 should be allowed.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 5/24/10

By:

John M. Carson
Registration No. 34,303
Attorney of Record
Customer No. 20995
(619) 235-8550

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